



MATERIALS FOR JOINTS FIELD SECTION 1057

1057.1 Scope. To establish procedures for inspecting, sampling, and reporting materials for joints.

1057.2 Apparatus.

- (a) Rule with suitable graduations to accurately measure the material to be inspected.
- (b) Micrometer or vernier caliper capable of measuring to 0.0001 in. [0.00254 mm] and accurate to within at least 0.001 in. [0.0254 mm].
- (c) Balance or scale accurate to within 0.5 percent of the weight [mass] of the sample to be weighed.

1057.3 Procedure.

1057.3.1 Dowel Supporting Units. Dowel supporting units shall be inspected to insure that approved bars are used to fabricate a unit meeting the requirements of Standard Drawing 502.10.

1057.3.1.1 Dowel Bars. Dowel bars for use in dowel supporting units shall be inspected in accordance with [Field Sec 1036](#) of this Manual. In addition, the inspector shall insure that the bars are smooth; round; and free of cutting burrs and other projections.

1057.3.1.2 Graphite. The free end of the dowel bar is given a coating of approved graphite grease. Graphite grease shall be applied in a manner that will result in a thorough covering of that section of the bar with a thin uniform coating. Graphite grease shall be accepted on the basis of manufacturer's certification or label analysis showing specification compliance. In many cases this is performed in the field by the Resident Engineer with no testing or reporting required. If the graphite grease containers do not show the necessary information and if certification can not be obtained, samples are to be submitted to the laboratory.

1057.3.2 Tie Bars. Tie bars shall be round deformed steel reinforcing bars inspected in accordance with [Field Sec 1036](#) of this Manual except that tie bars which are to be bent and straightened shall be Grade 40 [300] in accordance with AASHTO M31.

1057.3.3 Concrete Joint Sealer, Hot Poured Elastic Type. Each lot of this material shall be sampled and submitted to the Laboratory. A sample shall consist of the bulk container or one of the packaged parts of the bulk container (in the original manufacturer's container). A sample can also consist of a minimum of one gallon [4 liters] of material taken from the bulk container in a friction top container. Use SiteManager showing the name of the material, the name of the manufacturer, brand name, weight [mass], batch number, pouring temperature recommended by the manufacturer, and maximum safe heating temperature.

1057.3.4 Preformed Fiber Expansion Joint Filler. Each lot and thickness of material shall be sampled and submitted to the Laboratory through SiteManager. A sample shall consist of one piece, a minimum of 6 x 24 inches [150 x 600 mm].

1057.3.4.1 When the material is furnished in strips and the full sheet is not available for sampling, the sample width may be reduced from 6 inches [150 mm] to the width of the strip or a minimum of 4-1/2 inches [115 mm]. For lesser widths, the material may be accepted by a manufacturer's certification to AASHTO M 213.



1057.3.5 Plastic Waterstop. The contractor shall furnish a manufacturer's certification in triplicate, showing typical test results representative of the material and certifying that the material supplied conforms to the requirements specified. The certification shall be carefully checked by the inspector to insure compliance with Specification Sec 1057.2.1.1. The inspector shall visually inspect the material to insure that the waterstop is a continuous strip; ribbed on both sides; and with a hollow bulb center, a "U" shaped reinforced center-pleat section, or other approved type of center section.

1057.3.6 Rubber Waterstop. The contractor shall furnish a manufacturer's certification in triplicate, showing typical test results representative of the material and certifying that the material supplied conforms to all of the requirements specified. The certification shall be carefully checked by the inspector to insure compliance with Specification Sec 1057.2.2.1. The inspector shall visually inspect and measure the waterstop to insure that the material has an integral cross section which will be dense, homogeneous, and free from porosity and other imperfections. Minor surface defects such as surface peel covering less than one sq. in. [650 mm²] and surface cavities or bumps less than 1/4 in. [6 mm] in the longest lateral dimension and less than 1/16 in. [2 mm] deep, will be acceptable.

1057.3.7 Copper Sheeting for Flashing. Each lot and thickness of copper sheeting shall be sampled and submitted to the Laboratory. If a copy of the plans is readily available showing the required thickness and weight [mass] per square foot[meter], the inspector shall inspect for thickness and weight [mass] in the field. A sample shall consist of one piece, a minimum of 6 x 12 inches [150 x 300 mm] and be reported through SiteManager.

1057.3.8 Preformed Sponge Rubber Compound Expansion and Partition Joint Filler. Each lot and thickness of material shall be sampled and submitted to the Laboratory. A sample shall consist of one piece, a minimum of 6 x 12 inches [150 x 300] and be reported through SiteManager.

1057.3.9 Plastic Joint Compound for Vitrified Clay and Concrete Pipe. Each lot of material shall be sampled and submitted to the Laboratory. A sample of trowel grade, bulk type compound shall consist of approximately one gallon [4 liters] of material in a friction top can. A sample of extruded rope or flat tape shall consist of approximately one-half pound [230 g] of material in a friction top can or other suitable airtight container. The sample shall be reported through SiteManager showing the manufacturer's name, the brand name and designation of the material, lot number, and net quantity represented. Primer, if required to be used with extruded rope or flat tape types to maintain the material in position while pipe sections are being joined, shall be checked to insure that it has been recommended by the manufacturer of the joint material.

1057.4 Report. Joint materials sampled and submitted to the Laboratory will be reported through SiteManager. Reinforcing steel items inspected in the field shall be reported through SiteManager in accordance with [Automation Section AS-3510](#) of this Manual. All other joint materials inspected in the field shall also be reported through SiteManager. Reports on dowel supporting units shall include a reference to the identification or Laboratory numbers under which the dowel bars were approved. If certifications are required for the material, the certification shall be retained in the district office. The report is to indicate acceptance, qualified acceptance or rejection. Appropriate remarks, as described in [General Sec 7.1.2](#) of this Manual, are to be included in the report to clarify conditions of acceptance or rejection.

Distribution of reports for materials purchased under a Department purchase order is to be as described in [Field Sec 2001](#) of this Manual.

